

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated March 31, 2008. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-13 are pending in the Application.

Applicant(s) thank(s) the Examiner for acknowledging the claim for priority and receipt of certified copies of all the priority document(s).

In the Office Action, claims 4-10 and 12 are objected to for being in improper multiply dependent form. In response, the claims are amended to remove the multiply dependent form noted by the Examiner, as well as other informalities. Accordingly, withdrawal of the objection to claims 4-10 and 12 is respectfully requested.

In the Office Action, the abstract is objected to for being too long. By means of the present amendment, the Abstract is deleted and substituted with the enclosed New Abstract which better conforms to U.S. practice. Further, the specification has been amended to correct certain informalities noted upon review.

In the Office Action, the drawings are objected to because of lack of labels in FIG. 4. In response, labels have been added to

FIG. 4. A replacement sheet including FIG. 4 is enclosed. Applicant respectfully requests approval of the enclosed proposed drawing changes and withdrawal of the drawing objection.

In the Office Action, claim 13 is rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Applicant respectfully disagrees with and explicitly traverses this ground for rejecting claims 1-10. It is the Applicant's position that claim 13 requires statutory subject matter. However, in the interest of furthering the prosecution of this matter, Applicant has elected to amend claim 13 to more clearly state the invention. Specifically, Applicant has amended claim 1 to more clearly state a computer program product having a set of instructions stored on a computer readable memory medium ... Clearly claim 13 requires statutory subject matter. Accordingly, it is respectfully requested that the amendment to the claims be entered and that the rejection of claim 13 under 35 U.S.C. §101 be withdrawn.

Claims 2 and 3 are rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite. Claims 2 and 3 are amended herein to cure these noted problems. Accordingly, it is respectfully submitted that claims 2 and 3 are now in proper form

and it is respectfully requested that these rejections under 35 U.S.C. §112, second paragraph, be withdrawn.

In the Office Action, claims 1-3 and 11 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over "Towards real time Multi-modality 3-D medical image registration", by Netsch, IEEE 2001, (Netsch) in view of "A new orthogonal transform of signal coding" by Haddad, IEEE 1988 (Haddad). These rejections are respectfully traversed. It is respectfully submitted that claims 1-13 are allowable over Netsch in view of Haddad for at least the following reasons.

Netsch teaches a method of registering two three-dimensional images. However, it is respectfully submitted that Netsch performs this registration in a completely different way than the current system. Netsch performs a local correlation of grey-values of the images (see, page 719, section 2.1) by analyzing edges in the images and searching for a local correlation among a small group of image voxels. Voxels are selected by looking for image grey values that have a largest variance among neighboring voxels (see, section 2.2). Netsch does not utilize Hermite Transforms to perform a similarity measure. Although Haddad is cited for showing Hermite Transforms, the Hermite Transforms of Haddad are applied merely for

image coding to reduce transmission bit-rate and as such, Haddad does nothing to cure the deficiencies in Netsch.

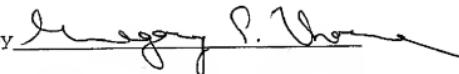
It is respectfully submitted that the system of claim 1 is not anticipated or made obvious by the teachings of Netsch in view of Haddad. For example, Netsch in view of Haddad does not disclose or suggest, a system that amongst other patentable elements, comprises (illustrative emphasis added) "using a Hermite Transform (HT) applied to both said image signals for performing an evaluation of two first sets of scalar valued Hermite coefficients ( $f_i$ ,  $g_i$ ,  $F_i$ ,  $G_i$ ), from which a combination yields a transformed set of scalar valued Hermite coefficients  $\{K_i\}$ ; applying the inverse Hermite Transform ( $HT^{-1}$ ) to the transformed set of scalar valued Hermite coefficients  $\{K_i\}$  to achieve the computation of a windowed correlation function ( $K(v)$ ); and estimating the maximum of said windowed correlation function as the similarity measure to correlate the shapes" as recited in claim 1, and as similarly recited in claims 11 and 13. Haddad is introduced to show Hermite Transforms, but the technique of Haddad is only applied to images for purposes of a reduction in data transmission rates and as such, does nothing to cure the deficiencies in Netsch noted in the claim above.

Based on the foregoing, the Applicant respectfully submits that independent claims 1, 11 and 13 are patentable over Netsch in view of Haddad and notice to this effect is earnestly solicited. Claims 2-10 and 12 depend from claim 1 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicant has made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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Enclosure: Replacement drawing sheet (1 sheet including FIG. 4)

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